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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,233	12/30/2003	William M. Hallidy	4233-104	8866

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EXAMINER	
HIRUY, ELIAS	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,233	HALLIDY, WILLIAM M.	
	Examiner	Art Unit	
	Elias B. Hiruy	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Argument

1. Applicant's arguments filed on 0/20/05 is received and entered into record.

2. Claim 8 rejection based on 35 U.S.C. 112, second paragraph, as being indefinite has been withdrawn as applicant amendment cleared the cited discrepancy in the earlier office action.

3. Applicant's arguments with respect to claim 1-15 have been considered but are not persuasive in view of the rejection cited below in their respective rejection section. The prior arts presented in the earlier office action has been used herein, in account of the argument presented by the applicant, to further address applicant concern and to clearly show how the limitation of the claims are met by the same.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

  (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godwin et al (US 3,959,702) in view of Tang (US 6,008,561).

Regarding claim 1, 8, and 9, Godwin et al teaches about an apparatus that meets part of the limitation of claim 1 and implements the methods taught by claim 8 and 9 in this application. Godwin et al apparatus has a synchronous motor 10 (Column 2, lines 14-20, and figure 1 label 10) (i.e. electrodynamic machine which inherently can be used as a generator to produce AC power as discussed by U.S. Rabinowitz et al Patent 5,325,002 column 1 lines 1-21). The synchronous motor comprises a stator three-phase armature winding (Column 2, lines 20-21, and figure 1 label 11), and a wound rotor (Column 2, line 21, figure 1 label 12).

Further, Godwin shows a damper winding (Column 3, lines 36-45) on said wound rotor for permitting electric currents to be induced by changes in the magnetic field. Said electric currents flowing in such a direction as to oppose changes in magnetic flux linkages (inherent since to an ordinary skill in the art the function of the damper winding is the same as induction winding as described in column. 3, lines 5-17 of U.S. Patent no. 3,916,229 or column 1, lines 33-56).

Brushless exciter 13 provides direct current power to the polyphase rotor winding to run the machine in a synchronous mode of operation (Column 2, lines 2-25 and 34-37).

In addition, a unidirectional device (fig. 1, labels 20) is provided to provide in order to short circuit the rotor winding to enable the machine to function in an induction mode of operation (Column 2, lines 37-45).

Although Godwin shows a damper winding, Godwin is not specific as to what kind of winding that could be implemented. Thus, Godwin fails to show a polyphase winding.

Tang, however, shows a " reluctance machine including one or more damping windings placed within the stator or within the rotor..." (Abstract lines 1-5 and column 14 lines 35-40)

Hence, It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the poly phase damper of Tang in Godwin et al invention as suggested by Godwin et al in column 3 lines 46-52. The motivation would be the method would immensely reduce unwanted machine vibration, noise and improves current commutation.

Regarding claim 2 and 10, Godwin et al apparatus shows a dc source connected to field winding 14 (Col. 2. lines 23-24).

Regarding claim 3 and 11, Godwin et al also shows a diode 20 connected for providing the short circuit during the induction mode of operation and alternatively for blocking the short circuit during the synchronous mode of operation (Column 3, lines 1-20).

In like manner of claim 4 and 12, thyristor 19 is connected in parallel to diode 20 and allows current flow in the opposite direction during the induction mode of operation (see fig. 1 and column 3 lines 4-7).

As to claim 5 and 13, Godwin et al shows a control circuit 21 for rendering the unidirectional switching device conduction during the induction mode of operation (Column 2 lines 46-48).

Regarding claims 6 and 14, thyristor 19 is a silicon-controlled rectifier.

Regarding claim 7 and 15, Godwin et al "exciter 13 has an armature winding 15, shown as three-phase winding [i.e. polyphase]" (Column 2, lines 25-27). In addition, "the armature winding 15 is connected to a rectifier bridge 16..." (Column 28-34) that is part of the exciter.

Remarks

5. No claim is allowed.

Prior art discussion

6. Dhyanchand shows a brushless generator that is operable in a generating mode to covert motive power into electrical power. In addition, in a starting mode to convert electrical power into motive power that includes a set of electrically conductive bars disposed on a rotor of the generator. The bars are interconnected to form a squirrel cage (i.e. damper windings) winding whereby AC power may be provided to main

generator portion armature winding which induces currents in the bars and causes the generator to operate as an induction motor.

In a similar manner as this application, the method includes a starting mode whereby means is provided for periodically shorting out winding of main generator. The method involves utilizing silcon-controlled rectifier, and it can be implemented in f the several ways (Column 4, lines –1-20). The applicant attention is respectfully directed to the prior arts that are listed in the PTO-892 forms since they were found by the examiner to teach closely related method and structure.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and are disclosed on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias B. Hiruy whose telephone number is 571-272-6105. The examiner can normally be reached on 7AM-4: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EH

08/12/05

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